

FIG. 1

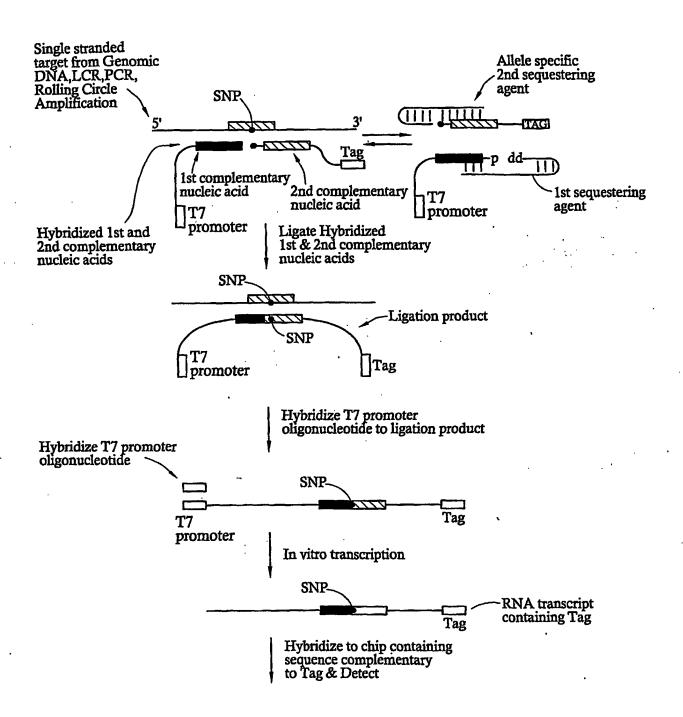


FIG. 2

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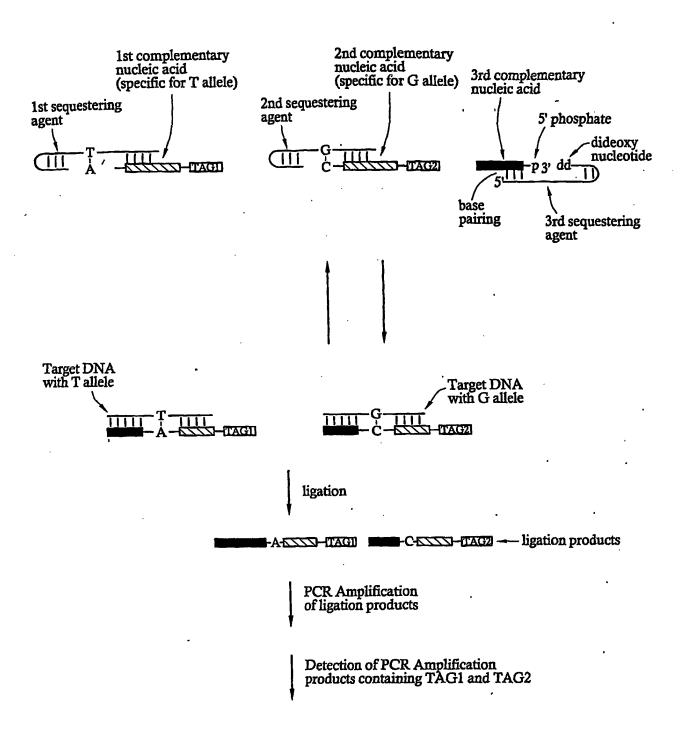


FIG. 3

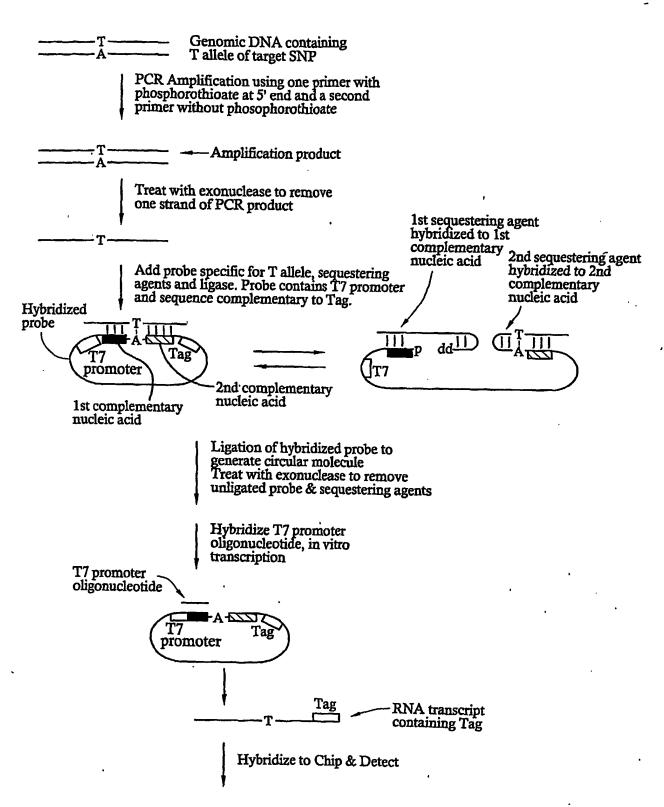


FIG. 4

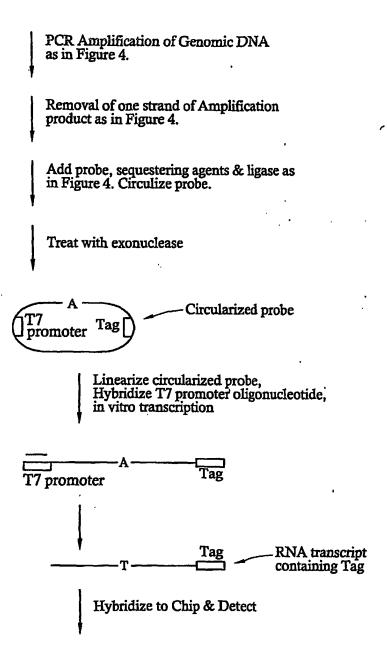


FIG. 5

PCR Amplification of Genomic DNA as in Figure 4.

Removal of one strand of Amplification product as in Figure 4.

Add probe, sequestering agents & ligase as in Figure 4. Circulize probe. Probe does not contain T7 promoter.

Treat with exonuclease as in Figure 4.

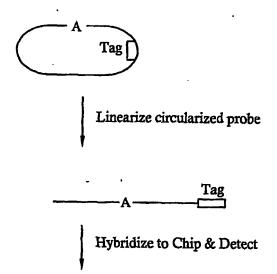


FIG. 6

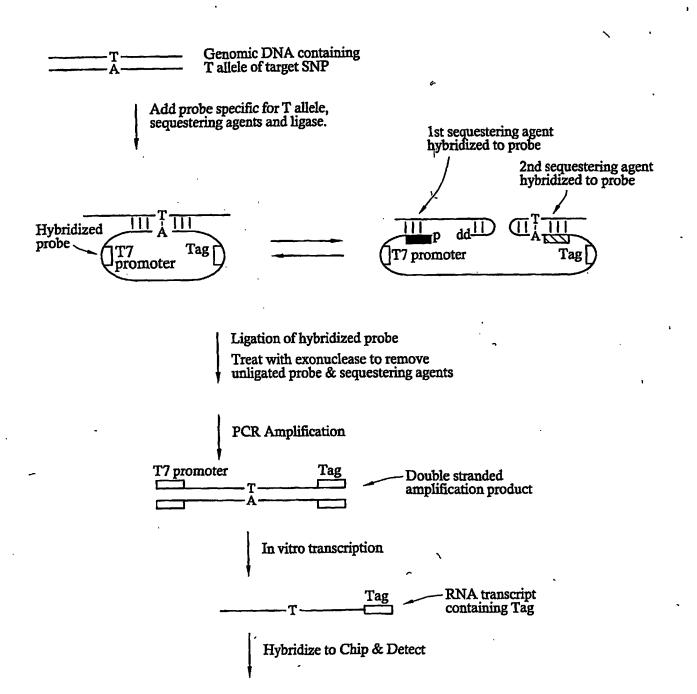


FIG. 7

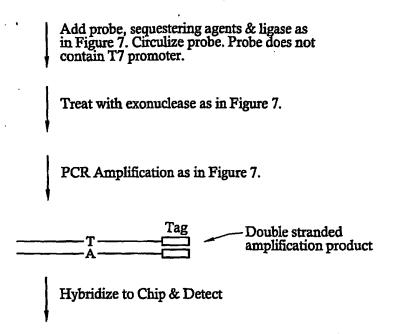


FIG. 8

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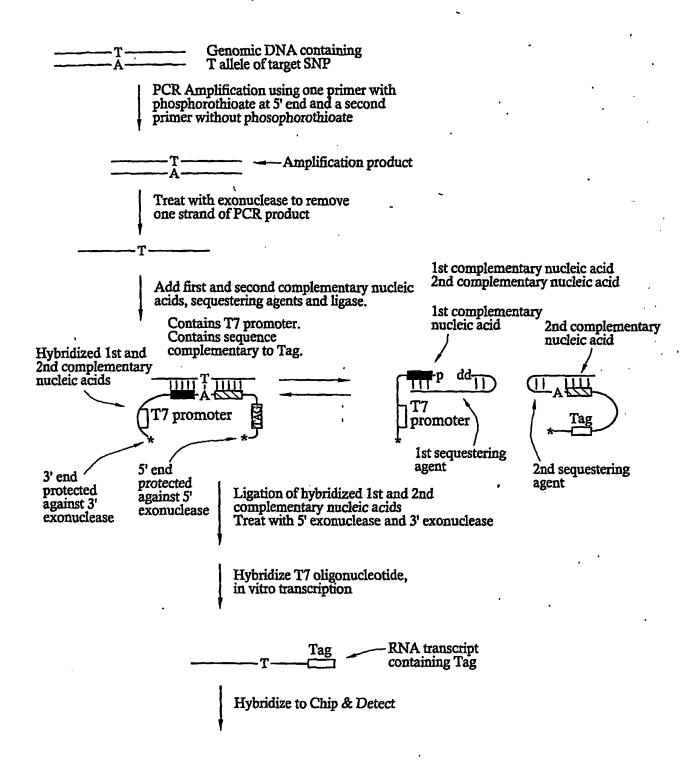


FIG. 9

PCR Amplification using one primer with phosphorothioate at 5' end and a second primer without phosophorothioate as in Figure 9.

Treat with exonuclease to remove one strand of PCR product as in Figure 9.

Add first and second complementary nucleic acids, sequestering agents and ligase as in Figure 9. 1st complementary nucleic acid does not contain T7 promoter.

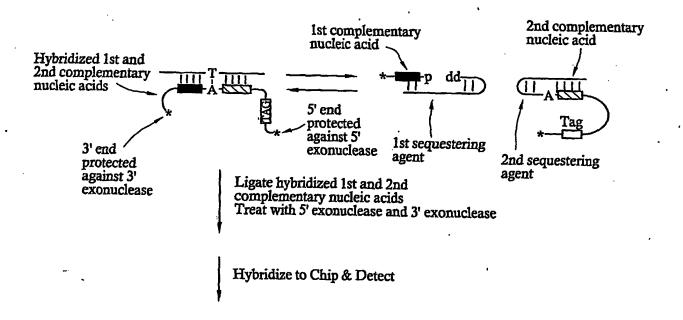


FIG. 10

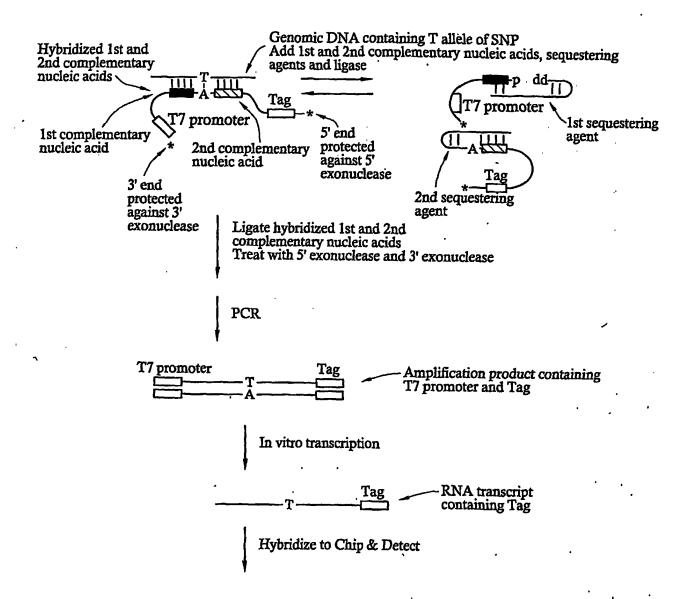


FIG. 11

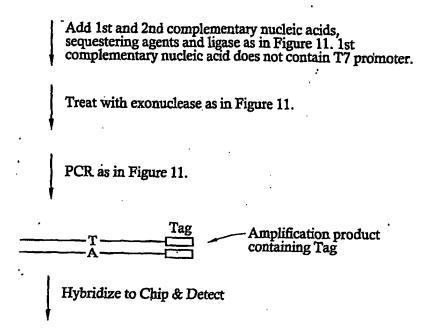


FIG. 12

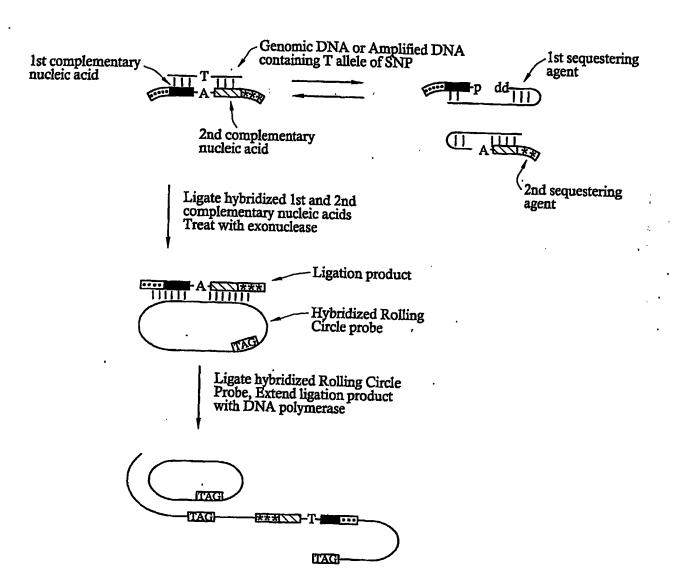


FIG. 13

SNP base (SEQ ID NO:20) 5' -CTAATCTGTAAGAGCAGATCCCTGGACAGGC AAG.. (F5 1698 T7 Probe) ...-AGACATTCTCGTCTAGGGACCTGTCCG-P

(SEQ ID NO:2)

Calculated Tm = 87.1

(SEQ ID NO:2) 3' -AGACATTCTCGTCTAGGGACCTGTCCG-P ddGCCTTCGCCGTTT

(SEQ ID NO:5)(5')GATCCCTGGACAGGC----CGGAAGCGGCTTT

Hybrid Tm = 77.2

Hairpin Tm = 81.0

Illustration of a suppressor of non-specific ligation:
Sequestering agent for the 5'-side ligation probe

FIG. 14

5' -AAGGAATACAGGTATTTTGTCC-3' ... (SEQ ID NO:2) ...OH-TICCITAIGICCATAAAACAGG (SEQ ID NO:3) SNP base (F5 1698 Tag Probe)

Calculated Tm = 75.4

TITGCAGAGCCGTG-5' OH-TICCTTATGTCCATAAAACAGG (SEQ ID NO:3) ---AAGGAATACAGGT (SEQ ID NO:5) Hybrid Tm = 64.2TTTCGTCTCGGCAC-Hairpin Tm = 81.0

Illustration of a suppressor of non-specific ligation: Sequestering agent for the 3'-side ligation probe for Factor V

FIG. 15

TAGGGACCIGICCG-P-5' SNS base (SEQ ID NO:20) 5' -CTAATCTGTAAGAGCAGATCCCTGGACAGGC (F5 1698 T7 Probe)...

(SEQ ID NO:22)

Calculated Tm = 75.4

(SEQ ID NO:22) 3' -TAGGGACCTGTCCG-P DD-GCCTTCGCCGTTT

CCTGGACAGGC-----CGGAAGCGGCTTT Hairpin Tm = 81.0Hybrid Tm = 67.7(SEQ ID NO:23) (5')

Illustration of a suppressor of non-specific ligation: Sequestering agent for the 5'-side ligation probe

5' -AAGGAATACAGGTATTTTGTCCTTG-3' ...OH-TICCTTATGTCCATAAAACAGGAAC-5' Calculated Tm = 77.8·base SS (SEQ ID NO:24) (F5 1698 Tag Probe) (SEQ ID NO:25)

TITGCAGAGCCGTG-5' OH-TICCTTATGTCCAȚAAAACAGGAAC-5' (SEQ ID NO:25) ---AAGGAATACAGG (SEQ ID NO:26) Hybrid Tm = 69.7TTTCGTCTCGGCAC--Hairpin Tm = 81.0

Illustration of a suppressor of non-specific ligation: Sequestering agent for the 3'-side ligation probe for Factor V

FIG. 16B